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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,459	03/26/2004	Yoshiyuki Tanaka	61282-069	7647

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EXAMINER	
NGUYEN, NAM THANH	

ART UNIT	PAPER NUMBER
2824	

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/809,459	TANAKA, YOSHIYUKI	
	Examiner	Art Unit	
	Nam T. Nguyen	2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/28/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,12-17 and 19-21* is/are rejected.

7)☒ Claim(s) *10,11 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/5/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *EAST search*.

DETAILED ACTION

1. In response to the applicant's amendment filed on 12/28/05. The examiner agrees with the applicant's remarks and respectfully withdraws the rejection in the office action on 6/22/05.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to **a single paragraph** on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9, 12-17 and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Higashi et al. (US. Pat. No. 6,310,806).

Regarding claims 1 and 15, Figure 1 of Higashi et al. disclose a first circuit (blocks 11, 12, 15, 17, 18, 19, 20, 22 and 23 are formed a circuit which is considered as a first circuit) having a prescribed circuit function (a first circuit could be performed read, write, rewrite or erase function); wherein a second circuit (16) is formed so as to be able to be connected externally to the first circuit (as explanation above) so as to give the first circuit a non-always-used particular function (when block 18 is off, block 16 and the memory cell array 11 is disconnected and when block 18 is on, the block 16 and the memory cell array 11 is connected) and to thereby allow the first circuit to perform the particular function.

Regarding claims 2 and 17, the second circuit (16) comprises an auxiliary function for realizing the particular function that has been given to the first circuit (see above); and the auxiliary function operates only in response to an instruction from the first circuit (When block 18 is on, there is a connection between block 16 and the memory cell array 11. Therefore, the functions of block 16 and the memory cell array 11 would be performed).

Regarding claim 3, the first circuit (see above) is used solely when block 18 is off.

Regarding claim 4, the second circuit (16) is configured so as to be able to operate solely (see fig. 1, when block 18 is off from an on state by an output from the input/output buffer 17, the switch circuit 23 is turned on from an off state).

Regarding claim 5, the second circuit (16) cannot be used except during operation of the particular function (block 18 of fig. 1 controls the function of the second circuit).

Regarding claims 6 and 16, the first circuit (see above) has a function of outputting a control start signal for activating the second circuit (16) and a function of receiving a signal for giving the particular function that is generated by the second circuit (see above).

Regarding claims 7 and 19, fig. 1 discloses the first circuit (see explanation in claim 1) has a function of permitting operation of the particular function only when detecting electrical connection of the second circuit (16), and not permitting operation of the particular function and permitting operation of only the prescribed circuit function when not detecting electrical connection of the second circuit (the first and second circuits are controlled by block 18).

Regarding claim 8, the first circuit (see claim 1) is a memory circuit (see fig. 1) and the particular function of the second circuit (16) is a function of writing data to the memory circuit (column decoder 16 has to perform a function that selects a bit line of a memory cell for writing data).

Regarding claim 9, the first circuit (see above) comprises a reading circuit for a memory (see fig. 12C and col. 15, lines 1-9) and the particular function includes a circuit for rewriting of the memory (a first circuit could be performed read, write, rewrite or erase function).

Regarding claim 12, a circuit function of the first circuit (see above) is determined by connections and disconnections of electric fuses (20); and the particular function includes a circuit (23) for connecting and disconnecting the electric fuses (20).

Regarding claim 13, the prescribed function includes a circuit (even though a first circuit doesn't show a circuit for performing reading on the memory, but implicitly teaches that before the defective memory cell is replaced by a redundant memory cell, it must be read to determine the detective cell) for performing reading on a memory in the first circuit, and the particular function is a function of controlling output of information of the memory to an external apparatus (I/O GATE 18 of fig. 1 would perform the particular function as recited in claim 13).

Regarding claim 14, the particular function includes a testing circuit for the first circuit (see col. 19, lines 7-14).

Regarding claims 20 and 21, Fig. 1 discloses the first device (as explanation above) comprising on one major surface of a package, first connection terminals (terminal output of I/O INPUT/OUTPUT BUFFER 17) for connection to an external circuit (not shown), and the second device (16) is formed so as to be able to be connected to the first device via second connection terminals (input terminal of I/O GATE 18) that are formed on the other major surface of the package that is opposed to the first major surface.

Allowable Subject Matter

5. Claims 10-11 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

There is no teaching or suggestion in the prior art to:

"the first circuit comprises a redundant circuit that is provided with wiring for forming prescribed logic blocks in the first circuit, and is configured in such a manner that its circuit function is determined by external redundancy setting" as claimed in the dependent claim 10; or

"each of the first device and the second device comprises an exchange circuit for serially supplying or receiving control signals for giving the particular function and a register for storing control signals for giving the particular function" as claimed in the dependent claim 18.

Conclusion

6. The following prior art, which is considered pertinent to applicant's disclosure although not relied upon, includes:

Yamane (US. Pat. No. 6,600,683) or Smith et al (US. Pat. No. 6,784,797 discloses semiconductor integrated circuit similar to that of the present application, but fail to disclose the claimed limitations as described above.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam T. Nguyen whose telephone number is (571) 272-1878. The examiner can normally be reached on 8 am to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571)272-1869. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nam T Nguyen
Examiner
Art Unit 2824

8/2/06

Tuan T. Nguyen